REGALP

Contract No QLK5-CT-2001-02329

ANNEX 4
to Work Package 4 Report

Pilot Region Scenarios
Visp-Saastal, Switzerland

Gregor Zajc
Simon Bratschi
Jenny Atmanagara

Berne, 15 January 2004

Regional Consulting, Vienna
University of Bern
Cemagref, Grenoble
Alpenforschungsinstitut Garmisch Partenkirchen
University of Udine
Urban Planning Institute of the Republic of Slovenia, Ljubljana

Table of contents

1. INTRODUCTION

1.1. Regional Profile

The region of Visp-Saastal lies in southern Switzerland, in the German speaking part of the **Canton of Valais**. It lies south of the Rhone River and borders directly to Italy in the south. It is approximately 70 km away from the border with France. There are **eleven municipalities** in the region which are divided into:

- **the Region of Visp**: Visp, Visperterminen, Zeneggen, Törbel, Stalden and Staldenried;
- **the Valley of Saas**: Eisten, Saas-Almagell, Saas-Balen, Saas-Fee und Saas-Grund.

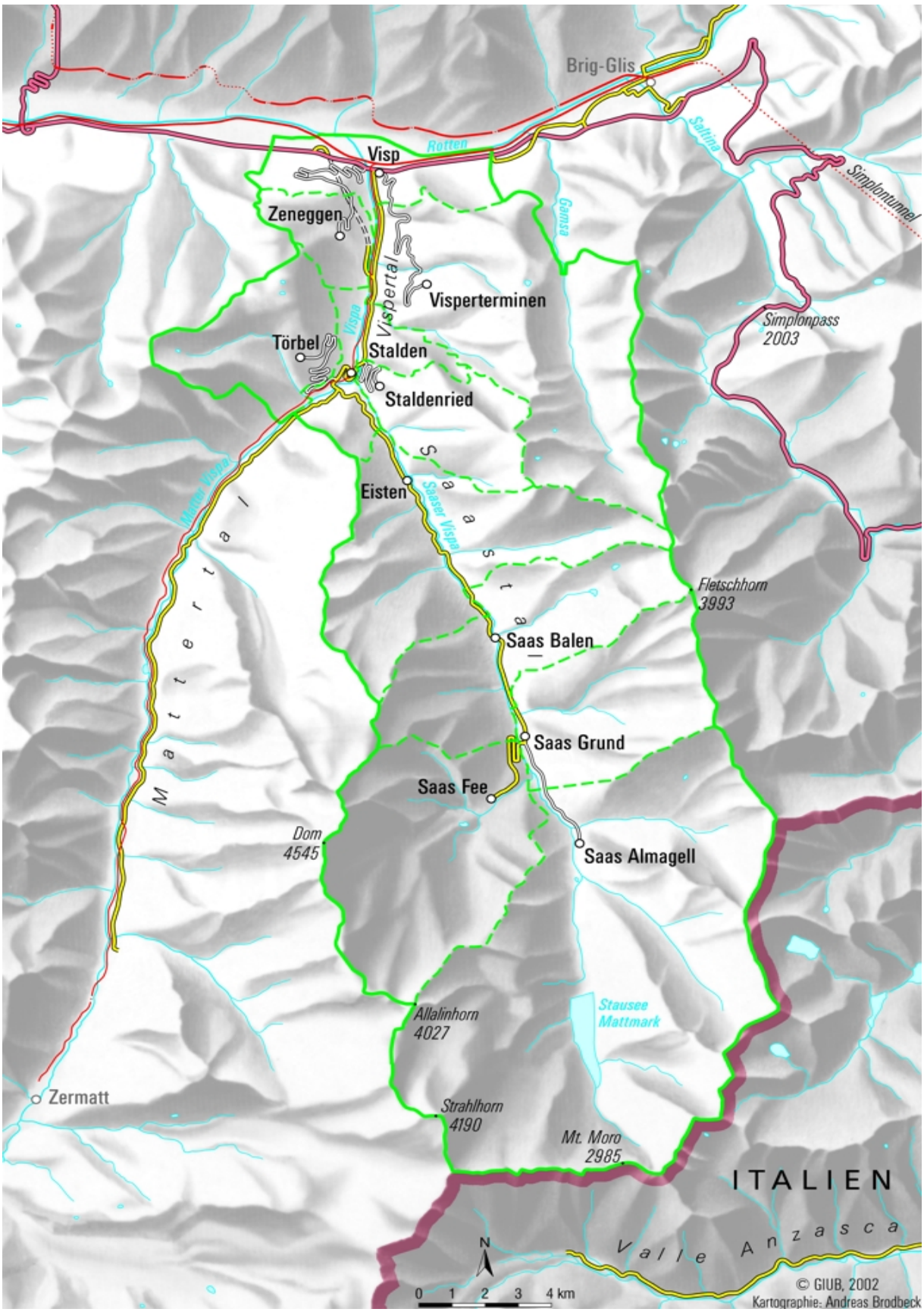
The region covers an area of **357 km²** with altitudes between **650 m** and **4,545 m**. The biggest part of the region (243 km²) lies in the Saas valley, with an average elevation of approximately 1,500 m above sea level. The highest settlement lies at the elevation of 1,800 m (Saas Fee).

The region of Visp-Saastal has a population of about **14,500 people** with a population density of **41 inhabitants per km²**. The population rose by 20 percent in the last thirty years (1970-2000). The principal town in the region is **Visp** (650 m above sea level), which lies in the northern part of the region at the entrance to the valley of Vispa. It has a population of more than 6,000 people.

The region of Visp-Saastal is not only one of the most important tourist destinations in Switzerland but also an important centre of industry, water-power, and wine production.

Fig. 1: Pilot Region Visp-Saastal

Fig. 2: Pilot Region Visp-Saastal in detail



1.2. Development Trends

The main characteristics of the development trends in the region Visp-Saastal between 1970 and 1990 in comparison with the total alpine area are:

- In the total alpine area 6 main development trends can be observed. They are divided into 9 sub-trends. In the pilot region Visp-Saastal two main spatial development trends can be identified: the centrally dominated development trend with the sub-trends 1.1, 1.2, and 1.5, secondly the tourism-dominated trend with two sub-trends 6.1 and 6.2. In the pilot region, as in the total Alpine area, the most important development trend is 1.1 (Visp-Saastal: 54,5 % of the municipalities analysed, total Alps: 24,3 %).
- The pilot region Visp-Saastal generally shows a demographic development similar to the total Alps. The relative increase of inhabitants and population in productive age in the pilot region is 8,7 % / 25,5%, in the Alps 10,5 % / 20,7 %. The greatest growth of population as well as working places was in the tourist area (Saas Fee) and the highest decline in peripheral municipalities above the valley floors. The commuter ratio was positive in the region while it was negative for the whole Alps.
- The growth rate of residential buildings was higher than the alpine average (51,3 %). The traditional settlement structure shows a pattern of densely built villages and hamlets. In the past few decades, this compact structure of settlements was partly broken up by residential and tourist house-building. In the town of Visp, about half of the settlement area today consists of a large-scale industrial area.
- In Visp-Saastal tourism plays an important role, more than in the Alps. Between 1971 and 1991 the number of tourist beds in Visp-Saastal increased by 32,5 %, in the Alps only by 3,7 %.
- The share of agricultural population in Visp-Saastal is very low (1991: 1,4 % compared to 7 % in the total Alps). On both levels the highest decrease of agricultural population is in sub-trend 1.1, but on the other hand the lowest decrease of agricultural businesses can be stated in this sub-trend as well. In the pilot region Visp-Saastal a decrease of full-time and part-time farming can be observed, in the total Alps there is a decrease of full-time but an increase of part-time farming. The shift from full-time to part-time farming is lower in Visp-Saastal that in the total Alps. In Visp-Saastal even a shift from part-time to full-time can be found in sub-trends 1.5, 6.1 and 6.2. The number of cattle per farm increased in Visp-Saastal from 3 to 7, in Alps from 11 to 20.
- Between 1971 and 1991 an increase of total agricultural land by 19% can be stated in the region Visp-Saastal, whereas a decrease of 10 % can be stated for the total Alps. The decrease of arable land and permanent crops in Visp-Saastal and in the Alps are similar (-25,7 to -25,3 and -27,5 to -28,2). The increase of intensive grassland in Visp-Saastal is much higher than in the Alps. The intensive grassland in Visp-Saastal is concentrated mainly in the local centre. In Visp-Saastal there is an increase of extensive grassland in all sub-trends, whereas in the Alps a decrease can be observed.
- Total agricultural land is mainly dominated by extensive grassland, but in Visp-Saastal this is more significant than in the total Alps.

Other observations are:

- Conflicts between agriculture, transport infrastructure, and housing construction will continue to exist. Particularly in Visp, many conflicts are to be expected not only owing to developments in transport infrastructure and the traffic node (construction of the motorway and of a new railway line), but also because of an increased need in land for housing construction. Areas that are freed up in the process are being farmed more intensively. It is important to note that farmers cannot build a viable existence unless they can acquire more land. On the other hand, areas in less favourable locations (i.e., the Saas valley) are being used more extensively since profits from tourism and other sources of income in industry or trade are greater than if land lying idle was farmed.
- A trend can be observed that shows a shift from part-time to full-time farming but this has to be relativized: there will not be so many full-time farms because they would not be viable. There are only a very few farms which have undergone this transition, and not much significance is attributed to this phenomenon.
- Tourism –weekend tourism in particular – is expected to increase owing to the increasing mobility of the population and improved connections, but tourist industry experts expect numbers of overnight stays to stagnate or even decrease slightly. Current capacities are not being exploited 100%.

2. THE LOCAL FACTORS

2.1. Alpine Remoteness

A. Local morphological features:

- Two valleys
- Narrow passes and gorges
- Altitude: 650 m – 4,545 m (centre 650 m, Saas valley average 1,500 m)
- 18 mountains higher than 4,000 m
- Slopes: very accentuated, sheer walls, wild brooks, pastures and meadows, vineyards, orchards (up to 1,100 m)
- Glaciers
- High tree limit (2,500 m) due to mild temperatures.

B. Accessibility:

- Great differences within region
- Road and railway system: good connections with other parts of Switzerland
- Railway constructed in 1889 (Visp-Stalden-Zermatt); road through the Valley of Vispa openend in 1923, road to Saas Fee in 1951
- The Simplon Railway Line connecting Paris and Milan runs through the northern part of the region

- New highway and new railway expected in the next years connecting the regional centre Visp with other parts of Switzerland. This will reduce the amount of time needed to get to the region of Visp-Saastal from other parts of Switzerland where the major metropolitan areas are located.
- Public transport: well organised (regular connections to all villages), some remote settlements have no or poor connections
- Private motorisation: sufficient (below Swiss average)
- Majority of tourists arrive by private cars.

2.2. Presence and use of local Resources

A. Local economic activities:

- Primary: scarce and decreasing
- Secondary: some important industries (chemical industry in Visp), energy (hydro-electric power stations)
- Tertiary: most important sector (tourism)
- The Valley of Saas is one of the most important holiday destinations in Switzerland
- Majority of working places in central town of Visp
- In May 2002, the region had one of the lowest unemployment rates (1.9 **%**) in the canton (Valais 2.4 %, Switzerland 2.5 %).

B. Presence of resources

- Nature: landscape (for tourism)
  water (energy)
  wood (building, furniture production)
  clean air (medical purposes)
  mild climate (wine- and fruit-growing)
- Cultural resources: architecture, traditional customs
- Local skills and know-how.

C. Selection of policies

- Act on Investment Aid for Mountain Regions
- Regional Development Concept
- Work Programme 2002 & Multiannual Programme 2003 – 2006
- Cantonal Structure Plan
- Municipal Land Use Plans.

D. Scope of policies (cf. Atmanagara et al, 2003: WP 3 T.3.6 National Report Switzerland: Evaluation of Policies):

- As a whole the policy system of Switzerland is more focussed on economical and ecological effectiveness than planning. The implemented political instruments affect the RD/CL interrelation.

- On one hand policies integrate an approach on landscape use (agriculture, nature conservation) and on the other hand an approach on landscape accessibility (transport, tourism). Both approaches are linked by regional policy which shapes to a certain extent regional development and cultural landscape change by providing funds for the development of mountain regions. In contrast the role of spatial planning is limited.
- The policies aim at a balanced development of regions. However, this aim is only partly achieved since quite often development in the regions is dominated by economic interests. Up to some extent also restrictions by law and complicated responsibilities within the administrative system limit the development of innovative ideas for future development.
- The policies for mountain regions focus on regional development in terms of improving living conditions (mainly economic and social objectives). The perception of ecological aspects is increasing nowadays with regard to natural dangers and security management of the area.
- Although efficient land-use in the limited perimeter of mountain valleys should be of highest priority, the policies consider this aspect not yet in a sufficient manner and the cross-section of spatial planning is not effective enough.
- In order to achieve a balanced regional development the political efforts veer towards location policy, promotion of competitiveness and job creation in other sector than agriculture. Holistic approaches including mission statements that consider all dimensions of sustainability are missing or not implemented in the region.
- The integration of landscape objectives into policies is aspired. This aim is furthermost reached in the sector policy of agriculture and in the examination process of the cross-section policy of spatial planning. The sector policies of transport and tourism mainly consider landscape in terms of environment (EIA). In this term landscape is to a large extent protected as a natural resource and natural means of living for human activities.
- The policies concerning sustainability focus on specific sector aspects (nature conservation, transport, tourism) or have a weak effectiveness (spatial planning) with regard to the RD/CL interrelation. Merely agriculture policy has started to integrate all dimensions of sustainability. On the other hand only one pilot project of Local Agenda 21 has just started (Saas Fee Mobility).

3. PUTTING THE PILOT REGION INTO A CLUSTER

The main development trends on local level for 1971-1981-1991 according to Bätzing development trends:

Trend	Sub-trend	Dynamics of change 71-81-91	Frequency	%
1.	1.1	G-P-P	6	54,54
	1.2	G-PE-PE	1	9,09
	1.5	LZ-LZ-LZ	1	9,09
6.	6.1	T-T-T	1	9,09
	6.2	G-G-T DS-G-T	2	18,18
Total			11	100,0

Source: own computations

Clustering of the region Visp-Saastal according to the Total Alps Scenario:

3.1. "Inertial" Scenario

	Sector	Areas at the centre of the polarisation		Peripheral areas		Tourist area
		Local centres	Commuter areas with own activities	Decline peripheral areas	Steady peripheral areas	
1	Number of municipali-ties belonging to the cluster	1	1	1	5	3
2	Bätzing types	LZ	G, PE	G, P	G, P	T, G, DS
3	Municipali-ties	Visp	Stalden	Eisten	Saas Balen, Staldenried, Törbel, Visperterminen, Zeneggen	Saas Almagell, Saas Fee, Saas Grund

Source: own computations

3.2. "Towards Sustainability" Scenario

	Sector	Areas at the centre of the polarisation		Peripheral areas			Tourist area
		Local centre	**Commuter areas with own activities**	**Decline peripheral areas**	**Steady peripheral areas**	**Growing peripheral areas (poly-or monofuctional)**	
1	No. of municipalities belonging to the cluster	1	1	1	1	4	3
2	Bätzing types	LZ	G, PE	G, P	G, P	G, P	T, G, DS
3	Municipalities	Visp	Stalden	Eisten	Saas Balen	Staldenried, Törbel, Visperterminen, Zeneggen	Saas Almagell, Saas Fee, Saas Grund

Source: own computations

4. THE "INERTIAL" SCENARIO FOR THE REGION VISP-SAASTAL FOR THE YEAR 2020

4.1. The Scenario for areas at the Centre of Polarisation

The area at the centre of polarisation can be further divided into two sub-areas, according to the model showed above:

(1) Local centre

(2) Commuter area with own activities and endogenous resources

4.1.1. Local centre

In the inertial scenario the local centre of Visp will maintain its central role. It will be the biggest settlement giving the biggest number of employment possibilities. It will maintain or even extend its administrative, educational, commercial, and cultural functions. Additionally, the importance of the centre will grow because of the new road and new railway line, which will enable shorter connections to the bordering regions and the metropolitan areas.

This is going to be an important factor concerning accessibility of the region. The new railway line will shorten the travel from the Swiss capital Bern by more than half an hour. It will make the region more attractive also for foreign tourists who will arrive by car (car train) to Visp and then continue their journey to the tourist areas. Also other metropolitan areas in Italy, France and Germany will have better connections.

There are new conflicts expected among the landowners. New infrastructure and new buildings are expected and the agricultural land will shrink. However, this should not attract very many new people, as the number of working places is not expected to increase a lot. The total population will increase and the ageing will be the same as national average. Population density will remain the highest in the region, and the migration balance is expected to be positive.

Strong land-use conflicts are present and landscape as well as environmental deterioration (i.e. air pollution and noise due to traffic which is expected to increase as a result of infrastructure improvement and an increase in population; loss of biodiversity) is growing. The quality of life is in this sense decreasing.

Furthermore, the economic activities (small industries, handicraft, services) will grow due to the general demand of the local population and foreign visitors according to the trends, although the number of capacities for tourists is not going to increase since tourism will be subject to stagnation.

The number of agricultural businesses is going to decrease although the land used for agriculture (arable land, extensive and intensive grassland) is going to increase due to more intensive agriculture with specialized production of crops or vegetables/fruits (greenhouses) and cattle breeding. The number of full-time farms will remain constant, but the number of part-time farms will decrease. Promotion of regional trademarks or labels will probably gain more attention.

Natural hazard is growing (flooding, landslides and mudflows) due to the increase in frequency of natural disasters and to more intensive occupation of the valley floor; the damages of a single event can be worse than in the past.

4.1.2. Commuter area with own activities and endogenous resources

The municipality of Stalden is not far from the centre and is the second biggest settlement in the valley. It is easily accessible by road and train. The population will increase or remain constant as in the centre, but the ageing is going to be lower than the national average since more younger people are going to move to the municipality. Population density will be lower than in the regional centre, but higher than the alpine average. The migration balance will remain negative, but in numbers it will not be of great importance.

The number of settlements (residential and productive) is going to increase because of immigration and an increasing number of working places, but many people will still commute to the centre of Visp. There will be a small increase or constant growth in small industry and services.

Traffic infrastructure will remain the same although a trend towards more motorisation is expected (mainly caused by out-commuting). The same will appear in tourism industry where no new accommodations are expected.

Services for the local population will remain on about the same level or decrease slightly due to a possible concentration in the regional centre. Since both population and economy are expected to grow, commercial services could even be extended, though.

Agriculture is facing a decrease in number of businesses and arable land. It might become second occupation, partly even more specialized than in the centre, partly subject to extensification. As a result of the overall decrease, forest area will grow.

Conflicts among settlements, agriculture, and infrastructure can occur if there is no careful planning. The same is going to be the case with pollution. Due to more through traffic, more pollution of air is foreseen. There will be a certain loss of biodiversity and the risk of natural hazards will grow similar to the centre.

	Sector	**Indicator**	**Areas at the centre of the polarisation**	
			Local centres	**Commuter areas with own activities**
1	Number of municipalities belonging to the cluster		1	1
2	Bätzing types		LZ	G, PE
3	Population	Total population	Increase	
		Ageing	Ageing as national average	Ageing slightly lower than in local centre
		Migration balance	Positive, some emigration of highly trained employees	Negative
		Immigration not EU	Constant	

		Density of population	The highest in the region	Higher than alpine average
4	Settlements	Residential settlements	Increase by some new residential settlements	Constant or increase
		Productive settlements	Increase	
		« Quality » of settlements	High density of settlements: urban models prevail on traditional models	Constant
5	Economy	Working places	Increase (handcraft, small industry, services)	Increase (handcraft, small industry)
		Gdp per capita	Increase	
		Size of public expenditure	Increase	
		Endogenous / exogenous income	Endogenous income prevails	
		« Quality » of jobs	Mobility, in-commuting, flexibility	Mobility, flexibility, in and out-commuting
		Telecommunication systems	Increase	
6	Infrastructure	Rail network	Increase (neat)	Constant
		Road network	Increase and mostly improvement of the existing network	Constant or increase
		Energy: systems of production and transport	Constant	
7	Traffic	Motorisation	Increase due to working places	Increase due to more frequent use of private cars
		Road traffic	Increase	
		Rail traffic	Increase (NEAT)	Constant
8	Services for residential population	Public services	Increase or constant	Constant or decrease
		Commercial services	Increase	Increase or constant
		Recreational services	Increase	Constant or decrease because of the concentration in the local centre

		Public transport services	Increase because these areas are the most important concerning working places, services, neat	Constant (out-commuters use in a large part private motorisation)
9	Tourism	Tourist beds	Constant	
		Overnight stays	Constant	
		Tourist infrastructure	Constant or increase	Constant or Increase because of improvement of tourism resources of these areas
		« Quality » of tourism	One day; cultural and business tourism	Hotels or bed & breakfast in private houses; all season tourism
		Integration with agriculture	Decrease due to decrease of agriculture itself	
10	Agriculture	Number of enterprises	Decrease	
		Full-time / part-time	Full-time enterprises are constant; decrease of part-time	Decrease; agriculture can be a secondary occupation for commuters (part-time)
		Zootechnical production	Constant or increase because of new intensive zootechnical activities	Decrease
		« Quality » of agriculture	More and more intensive (greenhouses, horticulture)	Intensive, new specialized agriculture, biological agriculture, or extensive agriculture
11	Land use	Forest area	Increase	Increase
		Arable land	Constant or increase	Decrease
		Intensive grassland	Increase	Constant or increase
		Extensive grassland	Increase	
		Settlement area	Constant or increase	
		Land-use conflicts	Increase of conflicts (among settlements, agriculture, infrastructures)	Conflicts can occur if there is no careful planning
12	Environment	Pollution	Increase, especially due to increase in traffic	Increase

		Waste disposal	Constant	
		Biodiversity and ecological features	Loss of biodiversity	
		Protection of nature	Constant or increase	
		Natural hazard	Risk of floods and landslides	Risk of landslides
13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels	Increase	
		Local activities (cultural or leisure clubs)	Constant or little increase	Some initiatives to promote.

4.2. The Scenario for Peripheral Areas

In distant areas away from the centre or above valley floor the following two types can be observed in the region of Visp-Saastal:

(1) Decline peripheral areas

(2) Steady peripheral areas

4.2.1. Decline peripheral areas

The municipality of Eisten can be considered as a decline peripheral area in the Visp-Saastal region. The municipality is facing an overall decline. The population is going to decrease especially as there are few job opportunities and young people are going to leave the areas and look for jobs elsewhere. Population density is therewith one of the lowest in the whole Alpine space. A small number of working places will persist, often in a "residual" way (small shops, some agricultural business, some tourism, perhaps holiday houses). Many people will commute or take advantage of pensions and subsides. The migration balance will be strongly negative and the ageing will be higher than the national average.

Settlements are going to decrease and the village will show evident signs of abandonment. Many residential buildings are going to be abandoned or occupied only in the summer period and in the weekends by ex-inhabitants. Further tourist activities are on a low level and are expected to decrease even more.

The number of services is going to decrease as well, only traffic – and with it public transport services – will remain the same (transit tourist traffic will increase).

Agriculture is not playing an important role, the number of enterprises and with them arable land and intensive grassland area are in constant decrease. Forest is going to increase and extensive grassland might remain constant. Due to the overall decline, land-use conflicts will be virtually inexistent.

The area can face similar natural hazards like other parts (landslides, mudflows, floods). Since human activities are low, pollution problems will be quite insignificant.

4.2.2. Steady peripheral areas

Steady peripheral areas are in a majority in the region. They are located mostly on the slopes above the valleys. They should face no or little loss of population although they are not easily accessible from the centre. Population density will be somewhat higher than in decline marginal areas. Ageing will be lower than in decline areas but higher than in the areas at the centre of the polarisation.

The areas have a steady migration balance although a light decrease of working places is foreseen. Some increase might occur in the tourism sector, though.

Services are decreasing due to the general trend. They are moving closer to the centre although the population will not decrease.

Settlements and infrastructure will remain the same, some light increase and quality improvement can occur because of the importance of tourism, especially "soft" and "agro" tourism. The development in tourism will differ from place to place; increase, stagnation, and decrease will take place at the same time. Road traffic will probably increase as a result of a stronger diffusion of motor vehicles.

Agriculture will decrease, only some part-time activities (wine-growing) will remain important. Forest area will therefore grow. On the other hand, agriculture and promotion of local products as well as landscape and history can be attractive for tourism development.

Land-use conflicts are expected to decrease, and pollution problems will be as marginal as in the decline areas. The risk of landslides and avalanches will be present in the future.

	Sector	**Indicator**	**Peripheral areas**	
			Decline peripheral areas	**Steady peripheral areas**
1	Number of municipalities belonging to the cluster		1	5
2	Bätzing types		G, P	G, P, change of area to T
3	Population	Total population	Decrease	Constant or little decrease
		Ageing	Ageing higher than national average (young people leave this area which offers little or nothing)	Ageing lower than in in decline marginal areas but higher than the national average
		Migration balance	Strongly negative	Almost steady
		Immigration not EU	Decrease due to decrease of working places	
		Density of population	The lowest in the alpine and perhaps in the national space	Lower than the national average but higher than the decline peripheral areas
4	Settlements	Residential settlements	Constant or decrease due to decrease of population	Constant or increase where tourism is the most important resource
		Productive settlements	Decrease because of general decline of the areas	Constant or little increase because of the “vital” sectors
		« Quality » of settlements	Evident signs of abandonment of traditional settlements	Traditional settlements could be exploited and improved
5	Economy	Working places	Decrease in all sectors because of general decline of the areas	Decrease or light increase in some sectors (tourism).
		GDP per capita	Decrease	Constant or increase
		Size of public expenditure	Decrease	Constant or little increase

		Endogenous / exogenous income	Mostly exogenous income	Endogenous and exogenous income
		« Quality » of jobs	Out-commuting can be common due to decrease of working places; there are a lot of retired people	Out-commuting, mobility lower than in central areas
		Telecommunication systems	Increase	
6	Infrastructure	Rail network	-	
		Road network	Constant	Constant
		Energy: systems of production and transport	Constant	Constant or little increase in use of local sources
7	Traffic	Motorisation	Constant	
		Road traffic	Constant	Constant or increase because of more intense mobility
		Rail traffic	-	
8	Services for residential population	Public services	Decrease due to general decline of these areas	Decrease due to the general trend (even if population needs some public services)
		Commercial services	Decrease	
		Recreational services (cultural services, sport, cinemas, theatres, religious services,…)	Decrease	
		Public transport services (inside the region and/or linking the region to other regions)	Constant (transit)	Constant
9	Tourism	Tourist beds	Constant	Constant or decrease
		Overnight stays	Decrease	In some places there is an increase, in others a decrease
		Tourist infrastructure	Constant or decrease	Constant or increase in those places where there is a tourism increase

		« Quality » of tourism	Vacational tourism (commuting)	Tourism could be linked to second houses or to new kinds of "soft" tourism or sports (but not only ski) tourism
		Integration with agriculture	Decrease	Agro-tourism could be increasing
10	Agriculture	Number of enterprises	Decrease	
		Full-time / part-time	Decrease	
		Zootechnical production	Decrease	
		« Quality » of agriculture	"residual" agriculture	Extensive
11	Land use	Forest area	Increase	
		Arable land	Decrease	
		Intensive grassland	Decrease	
		Extensive grassland	Constant or decrease	Constant or increase
		Settlement area	Abandonment of old settlements	Constant
		Land-use conflicts	Improbable	Decrease, or conflicts among new uses proposed by outsiders and insiders
12	Environment	Pollution	The low density of population and of human activities causes few (often localised) problems of pollution and waste disposal	
		Waste disposal		
		Biodiversity and ecological features	Increase of forests, loss of biodiversity	Re-growing of forests in some places. Presence of wild animals near to houses (so there is need to enclose kitchen gardens).
		Protection of nature	Increase	Probably more exploitation and improvement of environmental resources
		Natural hazard	Risk of landslides, erosion (access to the Valley of Saas)	Risk of landslides, avalanches

13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels.	Very few initiatives of promotion	Promotion and use of local identity as a resource. Typical local products.
		Local activities (cultural or leisure clubs).		

4.3. The Scenario for Tourist Areas

The tourist areas in the Valley of Saas depend on general trends and on the amount of snow, giving an advantage to the high-lying ski resorts with glaciers. These areas will face a general growth with an increase in population in spite of the negative migration balance, which is due to high living costs. Population density is and will be subject to strong seasonal variations according to tourist behaviour. The ageing is above national average due to movement of young people and high living costs.

There should be no or little increase in residential and productive settlements. The number of working places is expected to increase in the tertiary sector, while the other sectors will face a decline.

As more tourists want to come by car, road traffic is going to increase although the road network shall remain the same or face little increase. The local population will use more cars, too.

The services for residential population will remain in the same scope or decrease slightly (public services). On the other hand the recreational services mainly used by visitors could increase.

Tourism will face stagnation or even decrease although tourism infrastructure will increase. The quality of tourism is going to increase as well as the cooperation with agriculture, in spite of conflicts due to tourist infrastructure building.

Agriculture in the tourist areas will face a general decrease. It might be an important secondary resource, supported by the municipalities to maintain cultural landscape. Forest areas will increase as well as extensive grasslands; arable land and intensive grassland will face a decline.

A further problem is pollution. It will be seasonal because of too much traffic. Other natural hazards like floods, avalanches and landslides will be a potential danger to these municipalities, especially when global warming is taken into account (melting of permafrost and glaciers). On the whole, the protection of areas will continue according to global trends. Natural parks could contribute to an increasing attractiveness for tourism.

The established regional products as well as the region's image will remain on the same level.

	Sector	Indicator	Tourist areas
1	Number of municipalities belonging to the cluster		3
2	Bätzing types		T, g, ds
3	Population	Total population	Increase
		Ageing	Ageing higher than national average since young people prefer to live in lz and life in high mountains is more healthy
		Migration balance	Negative due to high cost of life
		Immigration not eu	Constant
		Density of population	Density will remain low in “dead” seasons, to very high in peak seasons.
4	Settlements	Residential settlements	Constant or increase
		Productive settlements	Constant
		« Quality » of settlements	Constant, “alpine” style of buildings
5	Economy	Working places	Decrease in primary sector, decrease in secondary sector, increase in tertiary sector
		Gdp per capita	Increase
		Size of public expenditure	Constant or increase
		Endogenous / exogenous income	Endogenous income prevails
		« Quality » of jobs	Flexibility, seasonal, in-commuting
		Telecommunication systems	Increase
6	Infrastructure	Rail network	-
		Road network	Constant or increase
		Energy: systems of production and transport	Increase of transport network, little increase in use of local sources

7	Traffic	Motorisation	Increase, more frequent use of private cars; tourists want free use of own car, but some village centres are reserved for pedestrians
		Road traffic	Increase
		Rail traffic	-
8	Services for residential population	Public services	Constant or decrease
		Commercial services	Constant (some problems concerning seasonal services)
		Recreational services	Constant or increase (seasonally), mainly for tourist
		Public transport services	Constant
9	Tourism	Tourist beds	Constant or decrease
		Overnight stays	Constant or decrease
		Tourist infrastructure	Increase
		« Quality » of tourism	Second houses and hotel accommodations; winter more than summer; medium periods and weekends according to general trends; ski tourism (retraction of glacier in summer causing less possibilities for summer ski); tracking and climbing in summer
		Integration with agriculture	Increase of agro-tourism
10	Agriculture	Number of enterprises	Decrease, agriculture can be an important secondary resource in these areas for maintaining cultural landscape and for agro-tourism
		Full-time / part-time	Part-time; people generally have another job
		Zootechnical production	Decrease
		« Quality » of agriculture	Extensive

11	Land use	Forest area	Increase
		Arable land	Decrease
		Intensive grassland	Constant or decrease
		Extensive grassland	Increase
		Settlement area	Constant or increase
		Land-use conflicts	Increase (conflicts between tourist infrastructure building and consciousness of landscape as a resource for tourism)
12	Environment	Pollution	Seasonal pollution problems due to too much traffic. Problem of soil pollution due to artificial snow.
		Waste disposal	Seasonal problems with waste disposal
		Biodiversity and ecological features	Changes according to global trends, loss of permafrost and glaciers
		Protection of nature	Protected areas and natural parks as resources for tourism
		Natural hazard	Risk of floods, landslides, and avalanches
13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels.	In some places there is an increase, in other urban and "global" identity prevails over the local one.
		Local activities (cultural or leisure clubs).	

5. THE "TOWARDS SUSTAINABILITY" SCENARIO FOR THE REGION VISP-SAASTAL FOR 2020

5.1. The Scenario for Areas at the Centre of the Polarisation

The area at the centre of polarisation can be further divided in two sub-areas, according to the model showed above:

(1) Local centre

(2) Commuter area with own activities and endogenous resources.

5.1.1. Local centre

The town of Visp will be the centre of the region with the majority of population, working places and secondary sector. The number of population will remain the same, ageing will be the same as the national average. There will be a positive migration balance because of more working possibilities and better Quality of life. Immigration from outside Switzerland will remain the same, and the density of population will be lower than in the inertial scenario. Working places will face a growth in services, handicraft and small industry.

The number of residential settlements will remain constant, the number of productive settlements will increase, and the density of settlements will be lower than in the intertial scenario.

Rail and road networks will increase because of the new connections by NEAT and highway. They will improve the accessibility of the region. Furthermore, rail and road traffic will increase.

The services for the local population will increase as well. There ought to be no or little increase in the tourism sector, though.

Concerning agriculture, the number of enterprises will remain constant; full-time enterprises will specialize and produce biological products. Forest area, arable land, and intensive grassland will remain the same or slightly increase. There will be a decrease in extensive grassland. Some conflicts will occur with increasing traffic and infrastructure on one hand and settlements and agriculture on the other.

In the centre, pollution of water, air, and soil as well as waste disposal problems are expected to decrease. Some loss of biodiversity will occur. Concerning natural hazards, protection against floods and landslides will be of priority. Increase of policies to protect nature will save it from being overexploited.

Regional identity will become an important factor, marketing of regional labels and products will increase.

5.1.2. Commuter area with own activities and endogenous resources

Development in the commuter area of Stalden will be similar to the one in Visp. Population will not change, there will be lower ageing than in the local centre, but the other characteristics are about the same.

A difference can be observed in infrastructure, where the rail and road networks will not increase. Secondly, the services for the local population will not increase but remain on the same level.

Tourism will face the same development as in the regional centre with some initiatives for soft and agro-tourism.

Concerning agriculture, there will be an increase of part-time businesses which will also become specialized (breeding) or produce biological products. Forests and arable land as well as intensive and extensive grassland will remain the same or increase due to some intervention of local planning to avoid landscape deterioration.

Pollution will be handled as in the centre and will cause less problems. There will be an increase in protected areas and protection against natural hazards (floods, landslides). Loss of biodiversity will be minor to the inertial scenario.

More initiatives for local activities and promotion are expected.

	Sector	**Indicator**	**Areas at the centre of the polarisation**	
			Local centres	**Commuter areas with own activities**
1	Number of municipalities belonging to the cluster		1	1
2	Bätzing Types		LZ	G, PE
3	Population	Total population	Constant	
		Ageing	Ageing as national average	Ageing less than national average
		Migration balance	Positive due to more working possibilities and better Quality of life	
		Immigration not EU	Constant	
		Density of population	Less than in the inertial scenario	
4	Settlements	Residential settlements	Constant	
		Productive settlements	Increase	

		« Quality » of settlements	High density of settlements (but less than in the inertial scenario): urban models prevail on traditional models	
5	Economy	Working places	Increase (services, handicraft, small industry)	
		GDP per capita	Increase	Increase: more opportunities to use endogenous resources for development
		Size of public expenditure	Little increase	increase
		Endogenous / exogenous income	Endogenous income prevails	
		« Quality » of jobs	Mobility, in-commuting, flexibility	Mobility, in and out-commuting, flexibility,
		Telecommunication systems	Increase	
6	Infrastructure	Rail network	Increase	Constant
		Road network	Increase	Constant
		Energy: systems of production and transport	Increase of transport network Increase in use of local resources	
7	Traffic	Motorisation	Constant or increase	
		Road traffic	Increase	Constant or increase
		Rail traffic	Increase	
8	Services for residential population	Public services	Increase	constant, increase in efficiency
		Commercial services	Increase	constant
		Recreational services	Constant or increase	Constant, in spite of general decrease due to TV on demand and more importance of internet for different services
		Public transport services	Increase	Constant or increase due to growing importance of these areas and because people have to move to the local centre
9	Tourism	Tourist beds	Constant or increase	Constant or increase; soft tourism could develop
		Overnight stays	Constant or increase	Constant or increase; soft tourism could develop
		Tourist infrastructure	Constant or increase	Increase due to development of soft tourism

		« Quality » of tourism	One-day, cultural, and business tourism	Hotels and Bed & Breakfast in private houses; all season tourism; brief or medium periods; soft tourism
		Integration with agriculture	No integration	Increase of agritourism
10	Agriculture	Number of enterprises	Constant	Constant or increase
		Full-time / part-time	Full-time enterprises of specialised and biological agriculture	Increase of part-time; full-time in specialised or biological agriculture or agro-tourism
		Zootechnical production	Constant	Increase since breeding could be one of the new resources to utilize
		« Quality » of agriculture	Policy interventions to avoid intensification	Strengthening of biological production and development of multifunctionality of primary sector
11	Land-use	Forest area	Constant	Constant or increase
		Arable land	Constant	
		Intensive grassland	Increase or constant	Constant
		Extensive grassland	Decrease	Constant or increase
		Settlement area	Increase	
		Land-use conflicts	Constant. Some problems with increasing traffic and infrastructure interventions. Conflicts avoided by stronger EIA legislation	Introduction of local planning policies to avoid landscape deterioration
12	Environment	Pollution	Little decrease of water, air, soil quality, noise pollution.	
		Waste disposal	Some problems of waste disposal	
		Biodiversity and ecological features	Light loss of biodiversity	Loss of biodiversity less than in the inertial scenario, arrival of new species.
		Protection of nature	Constant, increase of policies to protect nature	Increase of protected areas
		Natural hazard	Risk of floods and landslides	Deterioration of landscape is possible, especially due to residential and productive settlement

13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels.	Increasing interest	Strong increase
		Local activities (cultural or leisure clubs).	Increase	Many initiatives to promote

5.2. The scenario of peripheral areas

The peripheral areas can be divided into three different sub-areas for the "towards sustainability" scenario:

(1) Decline peripheral areas

(2) Steady peripheral areas

(3) Growing peripheral areas (poly- or mono-functional).

5.2.1. Decline peripheral areas

The decline area of Eisten lies halfway between the centre of Visp and the tourist areas in the Valley of Saas. It is an area facing decrease in population leading to one of the lowest densities in the whole Alps, higher ageing than national average, negative migration balance, as well as general decrease in settlements and economy, including working places. Settlements will show evident signs of abandonment. Infrastructure will remain the same, and there will be the same amount of roads and traffic (there will be an increase in traffic passing through to the tourist centres, but a decrease in local motorisation according to the loss of inhabitants).

Furthermore, an overall decrease in services for the local population as well as in tourism is expected. Concerning agriculture, some "residual" part-time farming will remain with some integration with tourism. Forests will increase, arable land and intensive grassland will decrease, extensive grassland will remain the same or increase slightly. The amount of land-use conflicts will decrease. Pollution will remain the same, although more air pollution due to traffic is expected. Loss of biodiversity will be less than in the inertial scenario. Some natural hazards (landslides) will be of potential danger in a landscape subject to deterioration as a result of abandonment.

The area has a scarce regional trademark or label identity.

5.2.2. Steady and growing peripheral areas

The difference between the steady and growing peripheral areas in the region of Visp-Saastal is that the steady area is located in the valley floor (Saas Balen), whereas growing peripheral areas are situated on the slopes above.

The steady area will face no increase in population as there is in the growing peripheral areas, which will show a slightly positive migration balance. Density of population will be relatively low in both areas. Ageing will correspond to the national average in growing areas, whereas in the steady area it will be higher. Concerning settlement areas, growing peripheral areas will face an increase due to some new small enterprises and tourist infrastructure while in the steady area no changes are expected. The buildings will be constructed in the traditional way (of wood). Other infrastructure, especially roads, will be improved; some new forest paths will be built, but traffic will not or just slightly increase due to some more inhabitants and commuters.

The services for the local population will develop according to the general trend, but they will not be shut down. Some commercial services might even increase in number. Tourism activities and specialised tourism ("soft" and agro-tourism) will increase in these municipalities. Concerning accommodation, second houses are a typical feature of these areas. In future, a shift towards more (para-)hotel accommodations is expected.

Agriculture will remain on the same level. Some new initiatives will bring specialized farming and breeding besides the traditional wine-growing. In connection with tourism, new labels and marketing can be of great attraction.

Land use will remain more or less in the same scale. Some conflicts between tourism, agriculture and small industries will be dealt with careful planning, as well as pollution problems, especially waste disposal. Policies to protect nature and landscape will be strengthened; protected areas and natural parks are expected to be established in growing peripheral areas. In both growing and steady areas, the risk of landslides has to be dealt with.

Identity and cultural heritage as well as beautiful landscapes will be a trademark of the area.

	Sector	**Indicator**	**Peripheral areas**		
			Decline peripheral areas	**Steady peripheral areas**	**Growing peripheral areas (poly- or monofunctional)**
1	Number of municipalities belonging to the cluster		1	1	4
2	Bätzing Types		G, P	G, P	G, sectorial

3	Population	Total population	Decrease	Constant	Light increase
		Ageing	Ageing more than national average	Ageing more than national average	Ageing as national average
		Migration balance	Negative	Constant	Slightly positive
		Immigration not EU	Very few (very few working activities)	Constant	
		Density of population	The lowest in the alpine and perhaps in the national space (but slightly higher than in the inertial scenario)	Lower than the national average	
4	Settlements	Residential settlements	Decrease	Constant	Increase
		Productive settlements	Decrease	Constant	Increase
		« Quality » of settlements	Evident signs of abandonment of traditional settlements	Improvement and renewal of traditional building for residential and tourist aims	
5	Economy	Working places (by sector if possible)	Decrease	Constant or increase (strengthening of "low industrial" sector, agriculture, breeding, and tourism)	
		Gdp per capita	Decrease	Different trends can be recognised in these areas where economy is either stable or facing crises coming from a growing trend; or a growing trend is beginning after a crisis	Constant or increase: more opportunities to use endogenous resources for development (government and non-government funds)
		Size of public expenditure	Constant or decrease		Increase
		Endogenous / exogenous income	Exogenous income prevails		Endogenous income prevails
		« Quality » of jobs	Very few activities, out-commuting to the growing peripheral centres	Flexibility, mobility	Flexibility, mobility, in-commuting

		Telecommuni-cation systems	Constant	Increase	
6	Infrastructure	Rail network	-		
		Road network	Constant	Constant, improvement of existing network; increase of forest paths and tracks, changing in use of forest paths for tourist aims	
		Energy: systems of production and transport	Constant	Increase of transport network Strong increase in use of local resources	
7	Traffic	Motorisation	Decrease	Increase in private cars	
		Road traffic	Constant (transit)	Constant	Increase due to more inhabitants, more commuters, and local activities
		Rail traffic	-		
8	Services for residential population	Public services	Strong decrease (less than in the inertial scenario)	Decrease as a general trend [YUN1]	
		Commercial services	Decrease (less than in the inertial scenario)	Constant	Constant or light increase
		Recreational services	Decrease	Constant or decrease	Constant
		Public transport services	Constant (transit)	Constant	Light increase due to policies aimed to reduce private motorisation
9	Tourism	Tourist beds	Decrease due to absence of tourist attractions	Constant or increase, depending on the resources used for development	Constant or increase; soft tourism could develop (agro-tourism, promotion of local products)
		Overnight stays			
		Tourist infrastructure	Decrease	Constant or increase	
		« Quality » of tourism	Holiday tourism (commuting)	[YUN2]second houses have been present for the last decades; new kinds of tourism prefer hotels or private houses; weekends, brief periods as well as medium periods; winter and summer tourism mostly; “soft” tourism, re-organisation of ski tourism where snow cover is not sure	

		Integration with agriculture	Constant	Increase	
10	Agriculture	Number of enterprises	Decrease	Constant	
		Full-time / part-time	Part time	Part-time as well as full-time in some initiative (breeding, biological or specialized agriculture)	
		Zootechnical production	Decrease	Constant or increase because it is linked to agriculture	
		« Quality » of agriculture	"residual" agriculture	Strengthening of biological production and of local high-quality products. Development of multi-functionality of primary sector and environmental services	
11	Land use	Forest area	Increase	Constant	
		Arable land	Constant		
		Intensive grassland	Decrease	Constant	
		Extensive grassland	Constant	Constant or decrease	
		Settlement area	Decrease (abandonment of peripheral settlements)	Constant	Constant or increase
		Land-use conflicts	Decrease. Conflicts avoided by absence of strong economic interest	Decrease. Higher consciousness of environmental resources as a basis for tourism, agriculture, and industrial development. Introduction of local planning policies to avoid landscape deterioration	
12	Environment	Pollution	Constant	More care towards territory, no increase of pollution in spite of the slightly higher density of activities	
		Waste disposal		Some problems with waste disposal	
		Biodiversity and ecological features	Loss of biodiversity less than in the inertial scenario. Arrival of new species		

		Protection of nature	Improvement of planning of protected areas. Slight deterioration of landscape is possible due to abandonment	Probably more exploitation and improvement of environmental resources	Increase of protected areas and natural parks. Increase of policies to protect nature and landscape
		Natural hazard	Risk of landslides		
13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels.	Scarce	Increase: cultural heritage and environmental resources are promoted in a tourist, environmental, and industrial key	
		Local activities (cultural or leisure clubs).			

5.3. The scenario of tourist areas

The "towards sustainability" scenario for the tourist areas depends on different driving forces according to overall alpine trends: main climate trends, such as global warming, lead to a reduction of snow, so that winter sports shift to the areas at higher altitudes. The municipalities in the valley have fewer advantages than the municipality of Saas Fee which lies higher above the valley and has its own glacier.

The tourist areas will face no changes in population; the ageing will be the same as the national average. The migration balance will remain the same; the amount of workers from outside Switzerland will remain the same or decrease. Since a more even distribution of tourist stays throughout the year is aimed at (see below), seasonal variations in population density will be less evident than in the inertial scenario.

Settlements will remain the same in size; perhaps some new residential settlements will be built and many buildings rebuilt in a traditional way. Cultural heritage will be of great importance for the tourist sector as well as for preserving local identity. Tourism will remain the most important employment sector; the number of jobs will increase in this sector and remain the same in others.

Tourism will face an increase in quality, orientating towards sustainable tourism. No further beds are expected, but even distribution over the year is desirable to fill the capacities and bring more profit.

Services for residential population and tourists are expected to increase or at least to remain on a constant level. The road network will remain the same although some light increase of traffic is expected. But due to limitations (e.g. Saas Fee car free village) only a certain number of cars can get there.

Concerning agriculture, only a few businesses will remain and they will specialize in high quality local production of biological agriculture. Together with tourism, agriculture will maintain the meadows and promote local products on the market.

Forest area as well as intensive and extensive grassland will remain the same; arable land will decrease. Settlement area will be constant or increasing causing some conflicts among tourism and

environmental aims. Seasonal problems with pollution and waste disposal will still take place, although less than in the inertial scenario. Biodiversity will change according to the trend in global warming. Policies to protect nature (including the establishment of protected areas and natural parks) and prevention of hazards (risk of landslides, floods, and avalanches) will be of great importance for the safety of local people and tourists.

	Sector	Indicator	Tourist areas
1	Number of municipalities belonging to the cluster		3
2	Bätzing Types		T, G, DS
3	Population	Total population	Constant
		Ageing	Ageing in the national average
		Migration balance	Constant
		Immigration not EU	Constant or decrease
		Density of population	Density will be very different according to the season, from very low in "dead" seasons to very high in peak seasons. These differences will be less evident than in the inertial scenario
4	Settlements	Residential settlements	Constant or increase
		Productive settlements	Constant
		« Quality » of settlements	Renewal of traditional buildings for tourist aims
5	Economy	Working places	Increase in tourist sector, constant in others
		GDP per capita	Increase
		Size of public expenditure	Constant or increase, for projects aiming at multi-functionality
		Endogenous / exogenous income	Endogenous income prevails
		« Quality » of jobs	Flexibility, high seasonality, in-commuting
		Telecommunication systems	Increase
6	Infrastructure	Rail network	-
		Road network	Constant

		Energy: systems of production and transport	Increase of transport network, increase in use of local resources
7	Traffic	Motorisation	Light increase due to use of private cars, but some village centres are reserved for pedestrians
		Road traffic	Light increase
		Rail traffic	-
8	Services for residential population	Public services	Constant
		Commercial services	Constant or increase (some problems concerning seasonal services)
		Recreational services	Constant or increase (seasonally), mainly for tourists, but also for local population
		Public transport services	Constant or light increase
9	Tourism	Tourist beds	Constant
		Overnight stays	Increase lower than in the inertial scenario
		Tourist infrastructure	Increase lower than in the inertial scenario
		« Quality » of tourism	Second houses and hotel accommodations; winter more than summer, but the trend is to "lengthen" tourist seasons; medium periods and weekends, according to general trends; ski tourism; tracking and climbing in summer; development of "soft" tourism
		Integration with agriculture	Increase of agro-tourism
10	Agriculture	Number of enterprises	Constant or decrease
		Full-time / part-time	Part-time and/or full-time for new biological and high quality local production
		Zootechnical production	Constant
		« Quality » of agriculture	In some areas extensive, in others intensive. Increase of biological agriculture and mostly of environmental services
11	Land use	Forest area	Constant
		Arable land	Decrease
		Intensive grassland	Constant
		Extensive grassland	Constant
		Settlement area	Constant or increase

		Land-use conflicts	Landscape is recognised by everybody as one of the most important resources, but some conflicts can occur among tourist and environmental aims
12	Environment	Pollution	Seasonal problems about pollution, but less than in the inertial scenario. Problem of soil pollution because of artificial snow
		Waste disposal	Seasonal problems of waste disposal
		Biodiversity and ecological features	Changes due to global warming, arrival of new species
		Protection of nature	Increase of policies to protect nature. Increase of protected areas and natural parks
		Natural hazard	Risk of landslide, floods and avalanches
13	Promotion of local cultural and environmental resources – local identity, local pride	Regional trademarks or labels.	Strong increase, cultural heritage and natural resources are promoted in a touristic and environmental key. High-altitude tourist areas tend to standardisation, which is in some cases avoided by special policies
		Local activities (cultural or leisure clubs).	

6. SUMMARY

The region of Visp-Saastal can be divided into two sub-regions: the region surrounding the local centre of Visp which is largely influenced by industrial activities, and the higher-lying Saas valley which can be characterized as a tourist region.

In the period from 1970 up to 1990, two main development trends out of a total of six taking place in the whole Alpine area could be observed in the region: the centrally dominated and the tourism-dominated trend. Whereas the population development corresponded to the Alpine average (increase by 8.7%), settlement development was stronger. Tourism is a very important branch within the local economy. In agriculture, an overall decrease could be observed, although the area of agricultural land increased. Many land-use conflicts occurred between agriculture, housing, and infrastructure building.

In spite of its alpine remoteness, the region is well connected to other regions by road and railway. Due to a projected motorway and the Lötschberg trans-alpine railway which is under construction, accessibility of the region will be further improved within the next few years. Inside the region, there is a well-organized public transport system. However, a majority of tourists arrive in their own private cars.

Concerning the local economic activities, tourism is by far the most important branch, but there are also some important industries, above all chemical industry in Visp and hydro-electric power stations. Agriculture is scarce and decreasing. The region has a relatively low unemployment rate. The most important resources are landscape (for tourism) and climate (water-power, agriculture, medical purposes).

Policies affecting the RD/CL interrelation focus mainly on economic and social objectives. Spatial planning is relatively weak. Integration of landscape objectives and sustainability in a holistic approach occurred merely in agriculture policy. In other sector policies, only specific aspects are accounted for.

Concerning the future development scenarios, two of them or a combination of different aspects of both respectively, seem probable, one of which is the “inertial” and the other the “towards sustainability” scenario.

In the “inertial” scenario, three types of areas can be distinguished from each other: the areas at the centre of polarisation which can be subdivided into the local centre and a commuter area with own activities, peripheral areas to be subdivided into decline and steady areas, and tourist areas.

The local centre of Visp will maintain or even extend its central functions. Population and working places and with them overall economic activities (although not in tourism) will increase by a small amount. Agriculture will decrease in terms of businesses, but agricultural land will increase in area due to intensification. Since new road and railway infrastructures will be opened up, accessibility will be improved. According to the amount of infrastructure and housing construction, land-use conflicts will increase. The same will occur with pollution, if an increase in population density and traffic is

taken into account. The risk of natural hazards is expected to grow in the whole pilot region according to overall trends (global warming).

The commuter area of Stalden will face a similar development, but the overall increase will be lower than in the centre. Infrastructure will remain about the same. Agriculture will face a general decrease here. Due to lower pressure, land-use conflicts and pollution will be less strong.

The municipality of Eisten which is located the farthest away from both central and tourist areas can be considered as a decline peripheral area. It will face an overall decline. The village as well as the agricultural land surrounding it will show evident signs of abandonment. The "residual" human activities will cause very few land-use conflicts and pollution problems.

The largest part of the pilot region consists of steady peripheral areas. As the name says, the areas' characteristics will remain constant. Services for the local population as well as agriculture will decrease according to the general trends, but local product promotion and agro-tourism can be a chance for agriculture. Road traffic is expected to increase. As in the declining area, land-use conflicts and pollution will not be of great importance.

The tourist areas in the Saas valley will face an overall growth, although this general trend will result in different characteristics from place to place: The high-lying ski resort of Saas Fee has more favourable natural conditions for tourism development (altitude, snow cover, own glacier) than the other municipalities in these areas. In spite of the general growth in economy and population, services and infrastructure are expected to remain about the same. Aside from tourism, the other branches will decrease, notably agriculture, which could on the other hand be supported by the municipalities to maintain cultural landscape in favour of tourism. Seasonal peaks in traffic will cause pollution problems. Natural hazards are particularly threatening in these high-lying areas since the loss of permafrost will affect slope stability and the melting of glaciers can contribute to floods.

In the "towards sustainability" scenario, there will be an overall growth of the local centre as in the "inertial" scenario, although at a somewhat lower rate. Notably the development of agriculture will be different: The number of enterprises will remain constant, and they will specialize and concentrate on biological production. Land-use conflicts will be inevitable, but on a smaller scale in terms of both number and intensity. Policies to protect nature will be strengthened, and pollution problems will decrease. Natural hazards can hardly be influenced, but measures of protection against them can be strengthened. Regional identity will become an important factor, marketing of regional labels and products will increase.

Development in the commuter area of Stalden will be similar. In tourism, initiatives for soft and agro-tourism are expected. Agriculture will remain constant alongside some specialization. There will be less pollution problems than in the "inertial" scenario.

Peripheral areas are in this scenario subdivided into decline, steady, and growing areas. The development of the decline peripheral area will scarcely differ from the "inertial" scenario, although measures to protect nature and landscape including preservation of agricultural activities could slow down the process of deterioration.

The steady peripheral area of Saas Balen will face a development similar to the "inertial" scenario. The differences lie in an increase of soft and agro-tourism, in preservation and specialization of agriculture, as well as in an increase of measures to handle land-use conflicts and pollution problems.

Growing peripheral areas will face a slight increase in population, settlement area, and economy. Infrastructure will be improved, and services will remain constant. Tourism and agriculture will develop as in the steady area. Measures to protect nature will imply the establishment of protected areas and nature parks.

Compared to the "inertial" scenario, the growth of tourist areas will be more focussed on quality and sustainability of tourism. The number of population and the settlement area will not change substantially; the amount of working places will increase in tourism and decrease in the other sectors. Services are expected to increase slightly. Agriculture, which will decrease in terms of businesses, will specialize in high-quality biological production and contribute to the maintenance of cultural landscape. There will be a strong increase in promotion of natural resources, cultural heritage, and local products. The risk of natural hazards will be the same as in the "inertial" scenario, but pollution will be less strong.

[YUN1]Perché non possono essere almeno constant?

[YUN2]Perché? In uno scenario più sostenibile io vedrei meglio gli hotels più che le seconde case, perché comunque gli hotels danno un reddito alla popolazione locale…